Appl. No. 10/574152
Amdt. Dated June 19, 2008
Reply to Office action of March 24, 2008

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A liquid emitting apparatus including a liquid chamber for storing a liquid, a supply unit for supplying the liquid to said liquid chamber, two or more pressure generating elements provided in said liquid chamber for pressurizing the liquid stored in said liquid chamber, ~~emitting means having a plurality of~~ emitting ports for emitting the liquid pressurized by said pressure generating elements onto a major surface of a support from said liquid chamber in the form of liquid droplets, and an emission ~~controlling means~~ control circuit for ~~controlling the current values~~ varying a current value supplied to at least one of said pressure generating elements relative to one of the other pressure generating elements to thereby control an ~~for controlling the~~ angle of emission of said liquid droplets from said ~~emission~~ emitting ports; wherein

with ~~the~~ a non-zero current supplied to one of said pressure generating elements as a reference current, said emission ~~controlling means~~ control circuit supplies ~~the~~ a current ~~approximately~~ substantially equal to said reference current or ~~the~~ a current having a current value difference less than ±10% from said reference current, to ~~the~~ one or more of the pressure generating ~~element or~~ elements other than the pressure generating element supplied with said reference current.

2. (Currently Amended) The liquid emitting apparatus according to claim 1 wherein said emission ~~controlling means~~ control circuit supplies ~~the~~ a current having a current value difference less than ±8% with respect to said reference current to the one or more of the pressure generating ~~element or~~ elements other than said pressure generating element supplied with said reference current.

3. (Currently Amended) The liquid emitting apparatus according to claim 1 wherein the emitting ports ~~of said emitting means~~ are arranged side-by-side in a line.

4. (Currently Amended) A liquid emitting method for a liquid emitting apparatus including a liquid chamber for storing a liquid, a supply unit for supplying the liquid to said liquid chamber, two or more pressure generating elements provided in said liquid chamber for pressurizing the liquid stored in said liquid chamber, ~~emitting means having a plurality of~~ emitting ports for emitting the liquid pressurized by said pressure generating elements onto a major surface of a support from said liquid chamber in the form of liquid droplets, and an emission ~~controlling means~~ control circuit for ~~controlling the current values~~ varying a current value supplied to at least one of said pressure generating elements relative to one of the other pressure generating elements to thereby control an ~~for controlling the~~ angle of emission of said liquid droplets from said ~~emission~~ emitting ports; wherein

with ~~the~~ a non-zero current supplied to one of said pressure generating elements as a reference current, ~~the~~ a current ~~approximately~~ substantially equal to said reference current or ~~the~~ a current having a current value difference less than ±10% from said reference current, is supplied to one or more of the pressure generating ~~element or~~ elements other than the pressure generating element supplied with said reference current.

5. (Currently Amended) The liquid emitting method according to claim 4 wherein ~~the~~ a current having a current value difference less than ±8% with respect to said reference current is supplied to the one or more of the pressure generating ~~element or~~ elements other than said pressure generating element supplied with said reference current.

6. (Currently Amended) The liquid emitting method according to claim 4 wherein the emitting ports ~~of said emitting means~~ are arranged side-by-side in a line.

Please add the following new claims:

7. (New) The liquid emitting apparatus according to claim 1, wherein said emission control circuit is comprised of one or more switches and a variable resistance element.

8. (New) The liquid emitting method according to claim 4, wherein said emission control circuit is comprised of one or more switches and a variable resistance element.

9. (New) The liquid emitting apparatus according to claim 7, wherein the current value applied to said one or more of the pressure generating elements other than the pressure generating element supplied with said reference current is varied relative to the variation of the resistance of said variable resistance element.

10. (New) The liquid emitting method according to claim 8, wherein said step of supplying a substantially equal current to one or more of the pressure generating elements other than the pressure generating element supplied with said reference current includes varying the resistance of the variable resistance element.

11. (New) The liquid emitting apparatus according to claim 7, wherein said emission control circuit is comprised of the variable resistance element connected to a first terminal of each of said pressure generating elements via a first switch, and said variable resistance element is selectively connected to a first potential power source and a second potential power source different from the first via a second switch.

12. (New) The liquid emitting method according to claim 8, wherein said emission control circuit is comprised of the variable resistance element connected to a first terminal of each of said pressure generating elements via a first switch, and said variable resistance element is selectively connected to a first potential power source and a second potential power source different from the first via a second switch.

13. (New) The liquid emitting apparatus according to claim 11, further wherein said pressure generating element supplied with a non-zero reference current has a second terminal thereof connected to a third potential power source, and each of said one or more pressure generating elements other than the pressure generating element supplied with said reference current has a second terminal thereof selectively connected to a fourth potential power source via one or more third switches.

14. (New) The liquid emitting method according to claim 12, further wherein said pressure generating element supplied with a non-zero reference current has a second terminal thereof connected to a third potential power source, and each of said one or more pressure generating elements other than the pressure generating element supplied with said reference current has a second terminal thereof selectively connected to a fourth potential power source via one or more third switches.

15. (New) The liquid emitting apparatus according to claim 13, wherein said first and fourth potential power sources are a ground level.

16. (New) The liquid emitting method according to claim 14, wherein said first and fourth potential power sources are a ground level.

17. (New) The liquid emitting apparatus according to claim 11, wherein said first and second switches are respectively controlled via first and second switch control circuits, said first control circuit causing the variable resistance element to be connected to and disconnected from said pressure generating elements, and said second control circuit determining whether the variable resistance element is connected to said first or said second potential power source.

18. (New) The liquid emitting method according to claim 12, wherein said first and second switches are respectively controlled via first and second switch control circuits, said first control circuit causing the variable resistance element to be connected to and disconnected from said pressure generating elements, and said second control circuit determining whether the variable resistance element is connected to said first or said second potential power source.